

Preliminary Engineering (PE)

- Engineering Study ✓
- **Preliminary Design**
- Final Design / PS&E
- Bid Phase



Section #15



Preliminary Design

Prior to beginning

- Engineering Study approved By NHDOT ✓
- Cost estimate updated with NHDOT ✓
- Schedule updated with NHDOT ✓
- **"Received Authorization to Start"**
Preliminary Design ✓

or "RATS" work is ineligible!!



8 Preliminary Design Steps

- 1) Perform Environmental Study & Classification
- 2) Submit Environmental Document for NHDOT review and NEPA approval
- 3) Coordinate utility relocation
- 4) Refine plans and cost estimate of the Proposed Action



8 Steps Continued

- 5) Document design exceptions
- 6) Review project with Traffic Control Committee
- 7) Submit Preliminary Design documents for NHDOT review and approval
- 8) Conduct public hearing for eminent domain, if necessary



Step #1 - Environmental Study and Classification

NEPA basics:

- NEPA – National Environmental Policy Act
- All projects get “**Classified**”
- Most LPA Projects get classified as a “**Categorical Exclusion**”
- Results in an **Environmental Document** and **Commitments** that must be followed to build your proposed action





Environmental Study and Classification

- NEPA requires a review of the effects of all:
 - Federal,
 - Federally Assisted, and
 - Federally Licensed Actions
- The level of review varies based on Proposed Action and Resources Affected





Environmental Study and Classification

NEPA:

Federal Laws

National Historic Preservation Act
Endangered Species Act
Clean Water Act
Land & Water Conservation Fund
Coastal Zone Management Act
Others

State Laws

Native Plant Protection Act
Dredge & Fill in Wetlands
Endangered Species Conservation Act
Shoreland Water Quality Protection Act
Others

Interdisciplinary Approach

Section #17

Environmental Study and Classification

The environmental process...

Engineering Study

- Contact Affected Groups ✓
- Identify the Resources ✓
- Identify the Purpose and Need ✓
- Involve the Public / Stakeholders ✓
- Identify & Begin Vetting Proposed Action ✓

Preliminary Design

- **Determine Project Classification**
- **Satisfy Resource Agencies / FHWA**
- **Submit Environmental Document**
- **Receive NEPA Commitments Memo**

NEPA shall be completed before Final Design



Environmental Study and Classification



Project classifications:

- Class I - Environmental Impact Statement (EIS)
- **Class II (Almost All LPA projects)**
 - **Programmatic Categorical Exclusion (75%)**
 - **Individual Categorical Exclusion (25%)**
- Class III - Environmental Assessment (EA)



Environmental Study and Classification

Programmatic Categorical Exclusion

- Most common LPA classification (**75%**)
- Called: "**Programmatic CE**"
- These types of projects have a demonstrated **history** of **not** having **significant** environmental impacts

See handout for List of Programmatic Activities (March 2016)



Env. Study & Classification

Use Determination Form to
classify your project

- Called **Categorical Exclusion Programmatic Determination Checklist Form**
- The completed form becomes your **Environmental Document w/ attachments**
- Has helpful **16 question checklist**
- **All Answers "No" = Programmatic CE**
- **If one or more Answer "Yes", then Individual CE**



See handout for copy of form



Environmental Study and Classification

Individual Categorical Exclusion

- Approx. **25%** of LPA Projects
- **Answered Yes** to one or more of the 16 questions on the **Programmatic Determination Checklist Form**
- **Requires the rest of the Programmatic Determination Checklist Form to be completed**
- Still step wise NEPA process
- Needs FHWA concurrence

Section #17



Env. Study & Classification

Programmatic CE Determination Checklist Form

State of New Hampshire – Department of Transportation

CATEGORICAL EXCLUSION PROGRAMMATIC DETERMINATION CHECKLIST

Action/Project Name: CITY or TOWN
Federal Project Number: X-A001(###)

State Project Number: #####
CE Action Number: #
(See page 15.)

Description of Project (Attach Location Map, As Appropriate):

DETAILED DESCRIPTION SHOULD INCLUDE:

- 1) PROJECT LIMITS,
- 2) PROJECT LOCATION,
- 3) PURPOSE AND NEED,
- 4) DESIGN PARAMETERS,
- 5) ANY OTHER SPECIAL CONSIDERATIONS.

[www.nh.gov/dot/org/projectdevelopment/
environment/documents.htm](http://www.nh.gov/dot/org/projectdevelopment/environment/documents.htm)

Section #17



Env. Study & Classification

16 Question Checklist



State of New Hampshire – Department of Transportation

CATEGORICAL EXCLUSION PROGRAMMATIC DETERMINATION CHECKLIST

Action/Project Name: _____ State Project Number: _____
Federal Project Number: _____ CE Action Number: _____

Description of Project: _____

PROGRAMMATIC CATEGORICAL EXCLUSION (CE) CRITERIA¹

	NO	YES
1 <u>Right-of-Way</u> – Does the proposed action result in any residential or non-residential displacements, or acquisition of property rights to an extent that impairs the functions of the affected property? Does the proposed action include acquisition of land for hardship or protective purposes?	<input type="checkbox"/>	<input type="checkbox"/>
2 <u>Traffic</u> – Does the proposed action result in capacity expansion of a roadway by addition of through lanes?	<input type="checkbox"/>	<input type="checkbox"/>
3 <u>Roadway Access</u> – Does the proposed action involve the construction of temporary access, or the closure of existing road, bridge, or ramps that would result in major traffic disruptions? Does the proposed action involve changes in access that pertain to interstate highways, or that have wide-reaching ramifications?	<input type="checkbox"/>	<input type="checkbox"/>
4 <u>Cultural Resources</u> – Does the proposed action have an Adverse Effect on historic properties pursuant to Section 106 of the National Historic Preservation Act?	<input type="checkbox"/>	<input type="checkbox"/>
5 <u>Section 4(f)</u> – Does the proposed action require the use of any property protected by Section 4(f) of the 1966 USDOT Act, that cannot be documented with a <i>de minimis</i> impact determination, or a programmatic Section 4(f) evaluation, other than the programmatic evaluation for the use of historic bridges?	<input type="checkbox"/>	<input type="checkbox"/>
6 <u>Section 8(f)/Conservation Properties</u> – Does the proposed action require the acquisition of any land under the protection of Section 6(f) of the Land and Water Conservation Act of 1965, or other publicly funded conservation areas?	<input type="checkbox"/>	<input type="checkbox"/>
7 <u>Wetlands/Surface Waters</u> – Does the proposed action require an Army Corps of Engineers Individual Permit pursuant to the Clean Water Act, and/or a Section 10 permit pursuant to the Rivers and Harbors Act of 1899?	<input type="checkbox"/>	<input type="checkbox"/>
8 <u>US Coast Guard</u> – Does the proposed action require a US Coast Guard bridge permit?	<input type="checkbox"/>	<input type="checkbox"/>
9 <u>Floodways/Floodplains</u> – Does the proposed action encroach on the regulatory floodway of water courses or water bodies, resulting in more than a nominal increase in base flood elevation? Does the proposed action have a significant or adverse impact on floodplain values, or create a significant risk to human life or property?	<input type="checkbox"/>	<input type="checkbox"/>
10 <u>Water Quality</u> – Does the proposed action have more than a negligible impact on water quality?	<input type="checkbox"/>	<input type="checkbox"/>
11 <u>Wild and Scenic Rivers</u> – Does the proposed action require construction in, across, or adjacent to a river designated as a component of, or proposed for inclusion in, the National System of Wild and Scenic Rivers?	<input type="checkbox"/>	<input type="checkbox"/>
12 <u>Noise</u> – Is the proposed action a Type I highway project?	<input type="checkbox"/>	<input type="checkbox"/>
13 <u>Endangered Species</u> – Is the proposed action likely to adversely affect species or critical habitat of species protected by the Endangered Species Act, or result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act?	<input type="checkbox"/>	<input type="checkbox"/>
14 <u>Air Quality</u> – Is the project inconsistent with the State Implementation Plan in air quality non-attainment areas, or the Statewide Transportation Improvement Program, or, in applicable urbanized areas the Transportation Improvement Program?	<input type="checkbox"/>	<input type="checkbox"/>
15 <u>CZMA</u> – Is the project inconsistent with the State's Coastal Zone Management Plan?	<input type="checkbox"/>	<input type="checkbox"/>
16 <u>Other</u> – Are there any other major issues of concern that would benefit from a more detailed discussion?	<input type="checkbox"/>	<input type="checkbox"/>

- ◆ If the answer to all of the above questions is **NO**, the proposed action **qualifies for classification as a Programmatic Categorical Exclusion.**
◆ If the answer to any of the above questions is **YES**, the proposed action **does not qualify for classification as a Programmatic Categorical Exclusion.**

Yes / No questions related to:

Right-of-Way, Traffic, Access,
Cultural Resources, Section
4(f), Section 6(f), Wetlands,
Coast Guard, Floodways,
Water Quality, Scenic Rivers,
Noise, Endangered Species,
Air Quality, Coastal Zones,
and Other Resources

***See handout for Guidance
Document**

Section #17



Env. Study & Classification

Programmatic CE Form discussion section

DETAILED DISCUSSION OF PROGRAMMATIC CE CRITERIA

1a & 1b. Air Quality – Is the proposed action a non-CMAQ project requiring a conformity determination? A conformity determination is not required as this project is consistent with the projects listed in Table 2 of 40 CFR 93.126.

2. Cultural Resources – Does the proposed action have an adverse effect on properties eligible for or listed in the National Register of Historic Places? **No.** The project was determined to have [effect] on historic resources. Detail any stipulations conditioning the effect memo from SHPO.

3. Endangered Species – Does the proposed action affect species and critical habitat of species protected by the Endangered Species Act, as determined through consultation with USF&WS, NHF&G, and /or NHHB, as appropriate: **The work will not affect species and/or critical habitat of species protected by the Endangered Species Act, as no work will be completed within waterways, wetlands or require removal of vegetation.**

4. Floodways – Does the proposed action encroach on the regulatory floodway of water courses or water bodies: **No.** No work will be completed within wetlands or waterways.

5. Noise – Is the proposed action a Type I highway project? **No.**

6a & 6b. Right-of-Way – Does the proposed action require the acquisition of residences or businesses? **No.**

7. Section 4(f) – Does the proposed action require the use of any property protected by Section 4(f) of the 1966 USDOT Act, other than that for which a de minimis impact finding has been made? **No.** There will be no easements or acquisitions from property considered historic, publicly-owned public parks, or fish and wildlife refuges.

8. Section 6(f) – Does the proposed action require the use of any property protected by Section 6(f) of the L&WCF Act? **No.** Based on coordination with the Department of Resources and Economic Development there will be no Section 6(f) properties impacted, either permanently or temporarily, during construction.

9. Water Quality – Does the proposed action have more than a negligible impact on surface waters? **No.** There are no waterbodies within 1 mile of the project area listed on the 303(d) list as available through the Department of Environmental Services website. OR

The project area lies within one mile of an impaired water as listed with the Department of Environmental Services. However, the proposed project will not further impair the area for the listed pollutants.

10. Wetlands – Does the proposed action require an Army Corps of Engineers Individual Permit? **No.** There will be no surface waters or wetlands impacted by the construction of this project.

11. Other – Do any of the above conclusions benefit from more detailed explanation or are there other issues of concern? **No.**

- Fill in additional information
- Demonstrate understanding of issues
- Allows NHDOT/FHWA to complete approval process

Section #17



Env. Study & Classification

Checklist form attachments

- Location map
- Section 106 memo
- NHNHB memo
- USF&WS memo
- FIRMETTE and/or NHOEP memo
- Section 6(f) memo
- Contamination review
- Photographs
- Plans

State of New Hampshire – Department of Transportation

Exhibits

Exhibit 1 – Location Map
Exhibit 2 – USGS Topographic Map
Exhibit 3 – Traffic Data
Exhibit 4 – No Adverse Effect Memo
Exhibit 5 – NH Natural Heritage Bureau Memo
Exhibit 6 – NH Natural Heritage Bureau correspondence
Exhibit 7 – NH Division of Parks and Recreation Memo
Exhibit 8 – Surface Water Impairments
Exhibit 9 – Conservation Land Stewardship Program correspondence
Exhibit 10 – Land & Water Conservation Fund correspondence
Exhibit 11 – Office of Energy & Planning correspondence
Exhibit 12 – White Mountain National Forest correspondence
Exhibit 13 – Pemigewasset River Local Advisory Committee correspondence
Exhibit 14 – Conference Report – Dept of Resources & Economic Development
Exhibit 15 – Meeting Reports – White Mountain Environment Committee
Exhibit 16 – 1983 Memorandum of Agreement Cover Sheet
Exhibit 17 – Photographs
 Photo A – Franconia Notch State Park sign on southbound barrel
 Photo B – Typical metal pipe and MRM header
 Photo C – Typical MRM wingwalls
 Photo D – Stone retaining wall along Pemigewasset River
 Photo E – Stone dam
 Photo F – Stone retaining wall along southbound barrel (view S) and bike path/snowmobile trail adjacent to Echo Lake
 Photo G – Computer rendering of proposed 3-foot snow fence at Echo Lake
 Photo H – Typical two lane section of the Parkway (view N)
 Photo I – Existing three beam median guardrail in typical two lane section (view N)
 Photo J – Existing three beam median guardrail in typical two lane section (view N)
 Photo K – Typical condition of existing three beam median guardrail
 Photo L – Computer rendering of proposed NuGuard-31 median guardrail
 Photo M – Existing curb and catch basin
 Photo N – Computer rendering of proposed shoulder without curb
 Photo O – Location of proposed chain link snow fence (view N)
 Photo P – Existing chain link snow fence

Section #17

March 2000
Revised January 2005
Revised January 2006



Environmental Study and Classification

Programmatic CE Question #1 - Right-of-Way

Does the proposed action result in any residential or non-residential displacements or acquisition of property rights to an extent that it impairs the functions of the affected property?



Does the proposed action include acquisition of land for hardship or protective purposes?



Environmental Study and Classification

Right-of-Way Guidance

To qualify for Programmatic CE:

- Proposed Action cannot require the acquisition of residences or businesses, and
- Project acquisitions or permanent easements cannot impair the function of the property

Need to document and determine impacts



Environmental Study and Classification

Programmatic CE Question #2 - Traffic

Does the proposed action result in capacity expansion of a roadway by addition of through lanes?





Environmental Study and Classification

Traffic Guidance

- A project resulting in capacity expansion of a roadway by the addition of through lanes will be disqualified as a Programmatic CE





Environmental Study and Classification

Programmatic CE Question

#3 – Roadway Access

Does the proposed action involve the construction of temporary access, or the closure of an existing road, bridge, or ramps that would result in major traffic disruptions?

Does the proposed action involve changes in access that pertain to interstate highways, or that have wide-reaching ramifications?



Environmental Study and Classification

Roadway Access Guidance

Major traffic disruptions (disruptions beyond normal project conditions) are defined on a case by case basis in consultation with NHDOT and FHWA

Most LPA projects are not going to have major traffic disruptions



#4 - Cultural Resources

ROBERT FROST
—1874-1963—
Scene of the historical poem in
this English language are standing
with this small farm owned by the
poet from 1893 to 1963. Frost first
lived here, wrote his poetry, and
developed the poetic voice which later won him the
Pulitzer Prize for poetry and
three national book awards of his
famous poets.



Environmental Study and Classification

Cultural Resource Guidance

- Some LPA projects won't need Cultural Resource Agency review
- NHDOT Bureau of Environment can review and process certain types of projects with minimal or no potential to cause effects to historic resources

New streamlining effort for LPAs and DOT



Environmental Study and Classification

What kinds of projects/actions?

- "Appendix A and Appendix B Undertakings" listed in the Section 106 Programmatic Agreement
- Some Post 1945 Bridges / Culverts

See handouts for SHPO Section 106 Programmatic Process and Post 1945 Guidance



Environmental Study and Classification

But if you have potential cultural resources then:

- Submit RPR (Request for Project Review)
- Attend Cultural Resource review
- Determine Area of Potential Effect
- Determine your projects effect
 - No historic properties affected?
 - No adverse affect? or
 - Adverse affect?



This is an FHWA decision with SHPO concurrence



Environmental Study and Classification

Cultural Resources Guidance Continued

- Sponsor fills out LPA Effects Memo
 - Discusses project effect
 - FHWA and Sponsor sign
 - Represents approval
 - Required



See handout for copy of Effects Memo
Adverse Effect = Individual CE

Section #17



Environmental Study and Classification

Programmatic CE Question #5 – Section 4(f)

Does the proposed action require the use of any property protected by Section 4(f) of the 1966 USDOT Act, other than a *de minimis* impact determination?





Environmental Study and Classification

Section 4(f) Resources are:

- Publicly owned public parks and recreation areas
- Fish & waterfowl/wildlife refuges
- National Register listed/eligible historic properties





Environmental Study and Classification

Section 4(f) Guidance

- Consult with Local, State and/or Federal Agencies for publicly owned Public Parks and Recreation Areas and Fish & Waterfowl/Wildlife Refuges
- Consult during Monthly Resource Agency Meetings for potential 4(f) resources (historic and/or natural)
- The specific 4(f) resource and the impacts to it from the proposed action will need to be vetted to determine yes or no



Environmental Study and Classification

Programmatic CE Question #6 – Section 6(f)

Does the proposed action require the acquisition of any land under the protection of Section 6(f) of the Land and Water Conservation Act of 1965, or other publicly funded conservation areas?





Environmental Study and Classification

Section 6(f) Guidance

- Section 6(f) Lands are administered through the **NH Department of Natural and Cultural Resources (Formally DRED)**
- Consult with them to determine if 6(f) lands are involved in your project area





Environmental Study and Classification

Other Publicly Funded Area Guidance

- Contact the Stewardship Specialist at the NH Conservation Land Stewardship (CLS) Program and the Executive Director at the Land and Community Heritage Investment Program (LCHIP)





Environmental Study and Classification

Programmatic CE Question

#7 – Wetlands & Surface Waters

Does the proposed action require an Army Corp of Engineers Individual Permit?

and/or

A section 10 permit pursuant to the Rivers and Harbors Act of 1899?



Section #17



Environmental Study and Classification

Wetlands Guidance

- Perform wetland delineation
- Determine amount and type of wetland impacts
- If jurisdictional wetland impacts are 3 acres or greater, then an Army Corp of Engineers Individual Permit is required



Environmental Study and Classification

Rivers and Harbors Guidance

- Proposed actions conducted below the ordinary high water (OHW) elevation of navigable waters need to be permitted by Army Corp
- Natural Resource Coordination Meetings can be utilized to help determine permit thresholds and mitigation requirements



Environmental Study and Classification

Programmatic CE Question

#8 – US Coast Guard

Does the proposed action require a US Coast Guard bridge permit?





Environmental Study and Classification

US Coast Guard Guidance

- Alteration or replacement of bridges over navigable waters may require a Bridge Permit from the Coast Guard
- If the Coast Guard confirms that a Bridge Permit is required, then the action does not qualify for a programmatic CE

See handout for definition of navigable waters

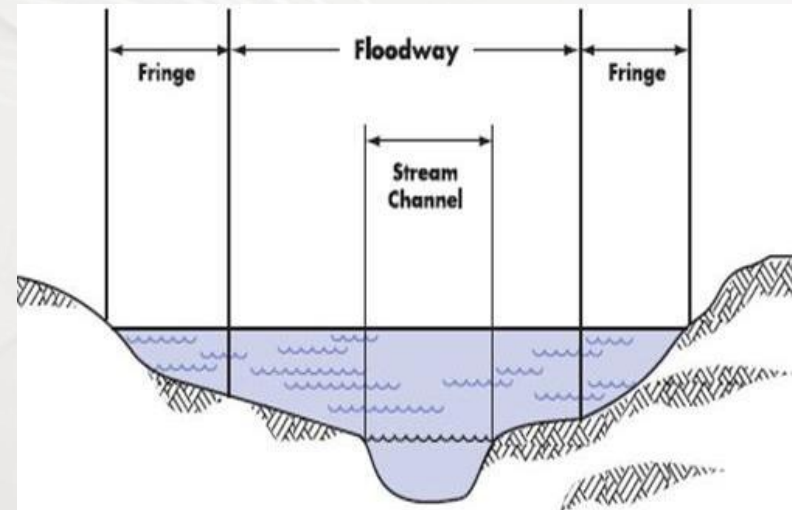


Environmental Study and Classification

Programmatic CE Question

#9a - Floodways

Does the proposed action encroach on the regulatory floodway of water courses or water bodies, resulting in more than a nominal increase in base flood elevation?





Environmental Study and Classification

Floodway Guidance

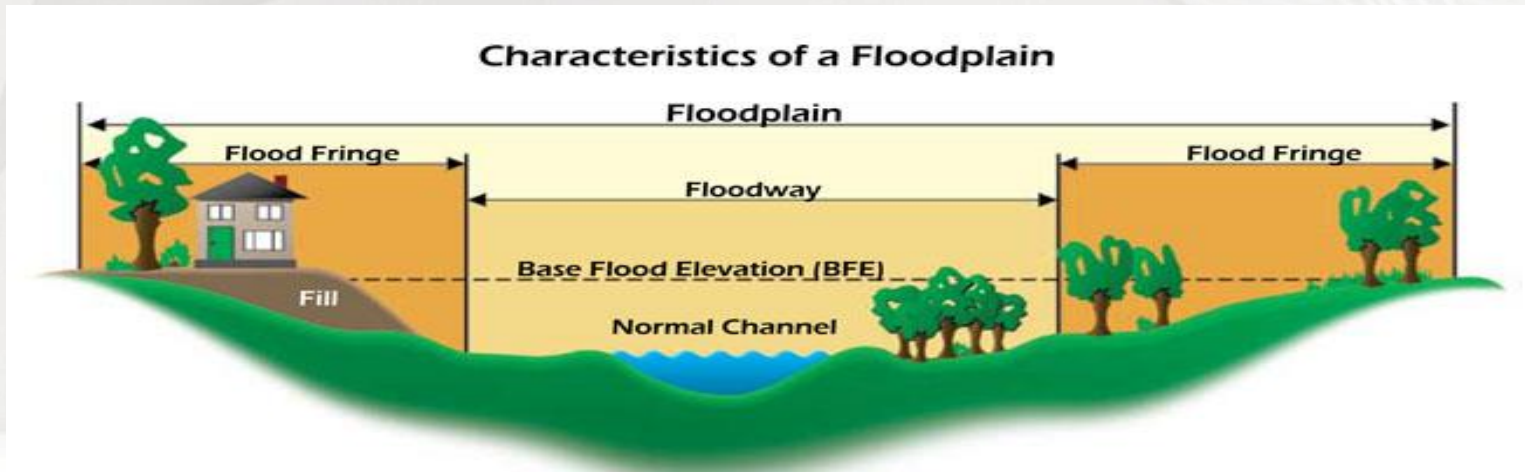
- Review Flood Maps to determine if action is located in regulatory floodway
- If so, perform hydraulic analysis and determine rise in flood elevation
- Generally rise < 1 foot qualifies for Programmatic CE



Environmental Study and Classification

Programmatic CE Question #9b - Floodplains

Does the proposed action have a significant or adverse impact on floodplain values, or create a significant risk to human life or property?



Source: NFIP Guidebook, FEMA

Section #17



Environmental Study and Classification

Floodplain Guidance

- Review National Flood Insurance Program Maps
- Consult Local, State, and Federal entities relative to floodplain management programs and required analysis
- Discuss at Natural Resource Agency monthly meetings



Environmental Study and Classification

Programmatic CE Question

#10 – Water Quality

Does the proposed action have more than a negligible impact on water quality?





Environmental Study and Classification

Water Quality Guidance

- Look for both surface water and ground water resources
- Review at Natural Resource Agency monthly meeting
- Consult with NHDES about sensitive water resources
- Follow Alteration of Terrain (AOT) and National Pollutant Discharge Elimination System (NPDES) requirements



Environmental Study and Classification

Programmatic CE Question **#11 – Wild and Scenic Rivers**

Does the proposed action require construction in, across, or adjacent to a river designated as a component of, or proposed for inclusion in, the National System of Wild and Scenic Rivers?





Environmental Study and Classification

Wild & Scenic River Guidance

- Lamprey River and Wildcat River
- If a project will impact the channel or banks of a W&S River or the channel or banks of a river below, above, or on a stream tributary to a W&S River, then the action will not qualify for Programmatic CE approval



Environmental Study and Classification

Programmatic CE Question

#12 -Noise

Is the proposed action a Type I highway project?





Environmental Study and Classification

NOISE Guidance

To qualify for a **Programmatic CE**, the proposed action must **not** be a **Type I** project which would consist of the following:

- Construction of a new highway
- Substantial alteration to vertical or horizontal alignment
- Addition of through lanes



Environmental Study and Classification

Programmatic CE Question

#13 - Endangered Species

Is the proposed action likely to adversely affect species or critical habitat of species protected by the Endangered Species Act, or result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act?





Environmental Study and Classification

Endangered Species Guidance

- Check New Hampshire Natural Heritage Bureau (NHB), US Fish and Wildlife (USFWS), and Information Planning and Conservation System (IPAC) Websites
- If positive, then further coordination will be necessary
 - * **New Guidance Coming for Bats**





Environmental Study and Classification

Programmatic CE Question #14 - Air Quality

Is the project inconsistent with the State Implementation Plan in air quality non-attainment areas, or the Statewide Transportation Improvement Program, or, in applicable urbanized areas the Transportation Improvement Program?





Environmental Study and Classification

Air Quality Guidance:

To be a Programmatic CE

- Project must be listed in the STIP -Statewide Transportation Improvement Plan
- Project must not be listed as "regionally significant" in the STIP



Environmental Study and Classification

Programmatic CE Question

#15 - CZMA

Is the project inconsistent with the State's Coastal Zone Management Plan?





Environmental Study and Classification

Coastal Zone Guidance:

- Proposed Actions in coastal communities may require a federal consistency review as determined by coastal program consistency coordinator at NHDES
- If so, an intergovernmental review process is coordinated thru the Grants and Compliance section of the Office of Energy and Planning (OEP)
- Other permits may cover these requirements



Environmental Study and Classification

Programmatic CE Question #16 - Other

Are there any other major issues of concern that would benefit from a more detailed discussion?





Environmental Study and Classification

Question #16 "Other" Items

Other issues **may disqualify** project from **Programmatic CE**:

- Public Opposition
- NH Designated River
- Lakes Management Program
- Comprehensive Shore Land Protection Act (CSPA)
- Certain population groups



Env. Study & Classification

Question #16 "Other" Items

Environmental Justice Populations:

- Elderly
- Minority
- Low Income
- Disabled
- Limited English Proficiency



Request analysis from NHDOT

Section #17



Step #2 - Submit Environmental Study for NHDOT Review and NEPA Approval

Completed Determination Form

16 answers all "NO" = Programmatic CE

or

1 or more answers "Yes" = Individual
CE and remainder of Determination
Form needs to be completed





Submit Environmental Study for NHDOT Review and NEPA Approval

Add environmental commitments

State of New Hampshire – Department of Transportation

ENVIRONMENTAL COMMITMENTS²

~~LEASING AND ACQUISITION~~

☐ The proposed action qualifies for a Programmatic Categorical Exclusion.

☐ The proposed action does not qualify for a Programmatic Categorical Exclusion.

Prepared by: _____ Date _____

Project Environmental Coordinator

Approval Recommended By: _____ Date _____

Section Chief

Approved by: _____ Date _____

Administrator, Bureau of Environment

Note: Post-hearing follow-up actions, if any, and their disposition are indicated on the next page.

² Attach letters, memos, forms, etc., as appropriate.

Commitments need to:

- Be Tracked
- Use the word "**SHALL**," not "should" or "will"
- **Come from the Environmental Review process**

Section #17



Submit Environmental Study for NHDOT Review and NEPA Approval

Example Cultural Commitment

*"All work within 25 feet of the cemetery, exclusive of work within the footprint of the existing roadway, **shall** be monitored by a 36 CFR 61 qualified archaeologist"*



Submit Environmental Study for NHDOT Review and NEPA Approval

Example public input commitment

"One lane in each direction shall remain open to the travelling public Monday thru Friday during the hours of 3pm to 6pm to help facilitate school buses and higher traffic volumes in the weekday afternoons"



Submit Environmental Study for NHDOT Review and NEPA Approval

NHDOT review time lines

- Programmatic CE: 1-2 Weeks
- Individual CE: 2-3 Weeks

(Requires review and approval by FHWA)

- Programmatic 4(f): 3-4 Weeks
- Full 4(f): 14-16 Weeks

(Requires US Dept. of Interior Review)





Submit Environmental Study for NHDOT Review and NEPA Approval

Final Product – NEPA Complete Memo

- NHDOT Bureau of Environment will issue a NEPA Complete Memo to NHDOT Project Manager
- We send copy to Sponsor and consultant (both keep copy)
- Memo will be needed later prior to bidding project (PS&E Stage)



**** NEPA shall be completed before
Final Design**

Section #17



Step #3 – Coordinate Utility Relocation



Section #20



Step #3 – Coordinate Utility Relocation

- Determine if utilities need to be relocated and who pays?
- Determine if work will be part of the LPA construction contract
- Determine time lines needed





Step #3 – Coordinate Utility Relocation

Rules and Policies

- There are **rules and policies** in place for the relocation of utilities based on **type of ownership** and **type of right-of-way**
- See **Section 20** of the **LPA Manual**
- See **NHDOT Utility Accommodation Manual (UAM)**



Section #20

Step #3 – Coordinate Utility Relocation

Utility Accommodation Manual (UAM)

- **UAM** discusses minimum requirements for location, installation, adjustments and maintenance of utilities
- Section 16 of UAM lists situations that qualify for reimbursement (**see handout**)
- NHDOT Policy to not participate in the burying of aerial utilities for aesthetics





Step #3 – Coordinate Utility Relocation



**Utility
conflicts can:
cause delay,
be costly,
or even
deadly!**



Step #3 – Coordinate Utility Relocation

Railroads

Many Combinations
of Ownership and
Operators:

- Private
- State
- Abandoned





Step #3 – Coordinate Utility Relocation

Railroad Coordination

- Coordinate thru your NHDOT PM
- State Owned/Managed RR corridors involve Bureau of Rail and Transit
- Privately Owned/Operated Railroads involve NHDOT Design Services Section
- **Entering a rail corridor without permission is trespassing – Temporary Use Agreements are required**



Section #20



Step #3 – Coordinate Utility Relocation

Typical RR Projects:

- Active railroad crossing thru your project (Pan-Am, Amtrak, etc...)
- Active railroad with trail nearby
- Abandoned Rail Trail / Multi-Use Paths



NHDOT owns most abandoned rail corridors

**Dept. of Nat & Cult Resources
Manages most abandoned rail
corridors**

Section #20



Step #4 – Refine Proposed Action

Incorporate comments from:

➤ Engineering Study Review



➤ Public Input Process



➤ NEPA Process



**The NEPA process may end up
modifying your previous Engineering
Study “Proposed Action”**

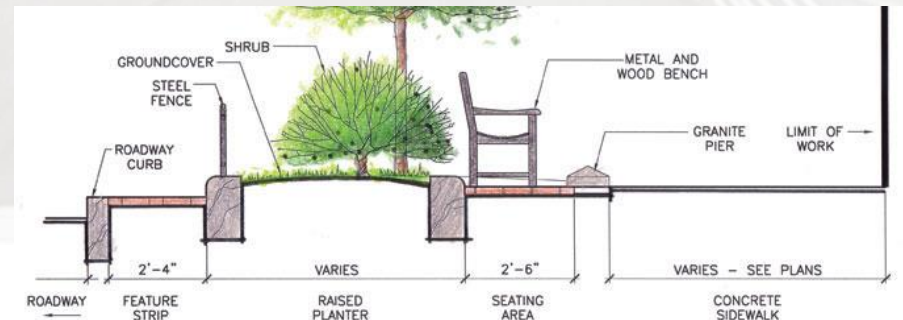
Section #15



Refine Proposed Action

Refine design plans and costs :

- Refine general plans and profiles
- Refine typical and critical cross sections
- Cost Estimates – **NHDOT 2016**
Standard Item Nomenclature



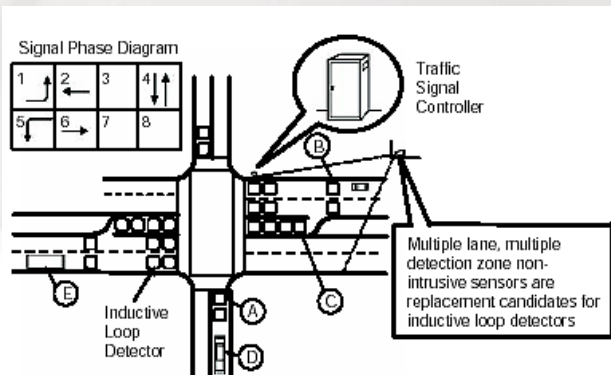
Section #15



Refine Proposed Action

Develop specific types of design plans appropriate to project

Structural, Alignment, Drainage,
Curbing, Signals, Pavement
Markings, Signs, Traffic Control,
Preliminary ROW, etc...



Section #15



Step #5 – Document Design Exceptions



Section #16



Document Design Exceptions

FHWA 10 Controlling Criteria used to be 13 (3 removed)

National Highway System (NHS) \geq 50mph

Design Speed

Lane Width

Structural Capacity

Vertical Clearance

Shoulder Width

Stopping Sight Distance

Cross Slope

Superelevation Rate

Horizontal Curvature

Maximum Grade

~~Horizontal Clearance~~

~~Bridge Width~~

~~Vertical Curvature~~

Section #15 & #16



Document Design Exceptions

If less Than 50mph, then only
2 controlling criteria:

- Design Speed
- Structural Capacity

Applies to all National Highway System
(NHS) Highways

NHDOT practice to apply this to all roadways

Section #15 & #16



Document Design Exceptions

Additional design elements

- Clear Zone
- Intersection Sight Distance
- Hydraulic Opening
- Queuing
- Level of Service
- Roadway Ponding
- And more.....



Section #15 & #16



Document Design Exceptions

Submit Early

- Submit Design Exception Documentation along with Preliminary Design submittal
- The Design Exception shall be granted no later than the Preliminary Plan stage



See handout for Design Exception info

Section #15 & #16



Step #6 – Traffic Control Committee (TCC) Review

TCC Policy & Memo

- TCC was created from the **Work Zone Safety and Mobility Policy** adopted 2007
- See NHDOT Website for Policy
- TCC requires Sponsor and/or Consultant to fill out memo describing project





Step #6 – Traffic Control Committee (TCC) Review

- TCC memo submitted to NHDOT PM
- Memo includes information to determine project “Significance” per the policy
- Location, Traffic Volumes, Cost, etc...

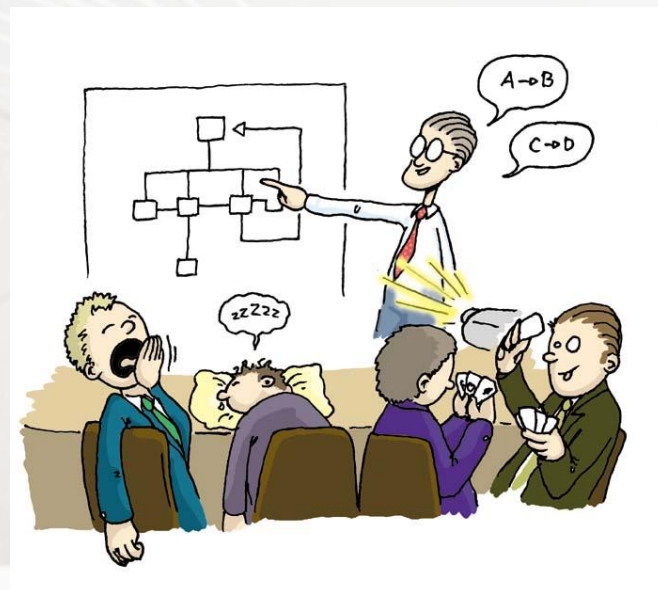
See handout for sample TCC Memo



Step #6 – Traffic Control Committee (TCC) Review

New – TCC Presentation Exemption

Some projects (most LPA projects) will have the ability to avoid meeting with the TCC if they can demonstrate they meet certain criteria in the TCC Presentation Exemption Memo (April 2015)



See handout for April 2015 Memo

SECTION 23



Step #6 – Traffic Control Committee (TCC) Review

TCC Presentation

- Sponsor/Consultant may be requested to meet with TCC to present the project
- Coordinate meeting through your NHDOT Project Manager
- Discuss elements in TCC memo



Step #6 – Traffic Control Committee (TCC) Review

TCC Outcome

The TCC will review the information supplied and make any comments or stipulations to be implemented as part of the **Work Zone Traffic Control Plan** or **Project Outreach Initiatives**



SECTION 23



Submit Preliminary Design Submission for NHDOT Review and Approval

Submission requirements

- Sponsor letterhead
- 11"x17" Plan Sheets
- Back up material, calculations, etc..
- Updated estimate
- Verify number of copies and format with NHDOT Project Manager



Step #8 - Conduct Public Hearing for Eminent Domain (If Necessary)

Public Hearings for Eminent Domain

- Very uncommon for LPA projects
- Need NHDOT concurrence prior
- Need FHWA concurrence of NEPA

Classification prior

Eminent Domain Hearings must be conducted prior to Final Design

Section #19



Conduct Public Hearing for Eminent Domain (If Necessary)

Public Hearing Law

- If you decide to hold a Public Hearing to layout the project on a class I, II or IV highway, you must comply with State RSA 230 and 231
- This may involve the appointment of a Commission, approved by Governor and Council

Section #19



Conduct Public Hearing for Eminent Domain (If Necessary)

Eminent Domain Laws

- Eminent Domain Procedures
State RSA 498A
- Federal Law - Uniform Act of 1970
49 CFR Part 24 (as amended)



Conduct Public Hearing for Eminent Domain (If Necessary)

Discussions with Abutters

- Encouraged
- **Can't discuss compensation until Final Design**
- **"Just Compensation"**
covered in Final Design





8 Preliminary Design Steps

Re-Cap:

- 1) Perform Environmental Study & Classification
- 2) Submit Environmental Document for NHDOT review and NEPA approval
- 3) Coordinate utility relocation
- 4) Refine plans and cost estimate of the Proposed Action



8 Steps Continued

Re-Cap:

- 5) Document Design Exceptions
- 6) Review project with Traffic Control Committee
- 7) Submit Preliminary Design submission for NHDOT review and approval
- 8) Conduct public hearing for eminent domain, if necessary



End of Preliminary Design

Project Status

- Project Agreement ✓
- Consultant Selected (QBS) ✓
- Scope and Fee ✓
- Engineering Study ✓
- NEPA Complete ✓
- Preliminary Design ✓
- Received letter from NHDOT to Proceed to Final Design ✓



Preliminary Design

Questions ?



Next Up:
Final Design